

REMARKS

Applicants have cancelled Claims 10 and 22 and have amended Claims 8, 11, 13, 15, 17, 19 and 20. Support for the present amendment can be found generally throughout the Specification, specifically at page 3, lines 27-29, page 5, lines 18 and 19, page 6, lines 1 and 2, and page 8, lines 25-30. Applicants respectfully submit no new matter has been added by the present amendment.

I. Claims Rejections - 35 U.S.C. § 112

The Office Action rejects Claims 19-22 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants have amended Claims 19 and 20 and have deleted the phrase "pale colored filler." Accordingly, Applicants request withdrawal of this ground of rejection.

II. Rejection under 35 U.S.C. §102(b)/103(a)

Claims 8-22 were rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Scholl, et al. (U.S. Patent Nos. 6,252,008 and 6,319,994). Applicants respectfully traverse this ground of rejection.

Applicants submit that in order to anticipate a claim, the cited reference must teach each and every element of the claimed invention either expressly or inherently. Similarly, Applicants submit that "in order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Finally, the prior art references must teach or suggest all the claims limitations. The teachings or suggestions to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicants' disclosure." See MPEP § 2142, citing In re Vaack, 947 F.2d 488, 20 USPQ 2d. 1438 (Fed. Cir. 1991).

Applicants submit that neither Scholl, et al. reference teaches or suggests each and every element of the claimed invention. The present invention is directed to rubbers comprising one or more hydroxyl-groups which are produced from diolefins, wherein said rubber(s) contain in the range 0.1 to 2 wt.% of bonded primary hydroxyl groups and have a glass transition temperature between -120 and -50°C, wherein said rubber(s) has cis-1,4 content, which is polymerized in solution, that is greater than 30%, and wherein said rubber(s) have an average molecular weight between 50,000 and 2,000,000.

Scholl, et al. discloses rubber blends, which have different chemical and physical behavior when compared to the present invention. First, Applicants submit that Scholl, et al. discloses solution polymerized vinylaromatic/diolefin rubbers (i.e. the rubber is a copolymer based on vinylaromatics and diolefins). See Column 2, lines 26-29 of '008 and '994. Second, Applicants submit that Scholl, et al. discloses rubbers having a glass transition temperature of between -50°C and +20°C. See Column 2, lines 26-29 of '008 and '994. Further, as illustrated in the Examples 1 and 2 of both Scholl, et al. references the rubber is prepared with Buna VSL solution SBR and the prepared rubber has a glass transition temperature of -11°C and -16°C.

As discussed above, the present invention is directed to rubbers based on diolefins (i.e. a homopolymer) having a glass transition temperature in the range of -120°C and -70°C. See Examples 1 and 2. Further, Applicants submit that the diene based homopolymer according to the present invention can be used individually, or in a blend. See page 6, line 13 - page 7, line 11. However, as discussed above, Scholl, et al. fails to disclose the diolefin component of the rubber mixture, i.e. the rubber based on diolefins having a glass transition temperature in the range of 120°C and -70°C. See also Column 4, lines 25-57. Accordingly, Applicants respectfully submit that neither Scholl, et al. references teaches or suggest each and every element of the claimed invention. Specifically, Scholl, et al. does not disclose rubber mixtures based on diolefin homopolymers or rubber mixtures having glass transition temperatures in the range of -120°C and -70°C. Therefore, Applicants request withdrawal of this ground of rejection.

III. Rejection under 35 U.S.C. §102(b)/103(a)

Claims 8-22 were rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Thienot (U.S. Patent No. 3,627,856). Applicants respectfully traverse this ground of rejection.

Applicants incorporate their comments from above. Applicants submit that Thienot fails to teach or suggest each and every element of the claimed invention.


Thienot discloses rubber compositions consisting of an ethylene propylene polymer and a polyhydroxy polymer. See Abstract and Claim 1. According to Thienot, the hydroxyl containing diene polymers have a molecular weight of about 900 to 10,000. See Column 3, lines 17-22. Also, Thienot discloses that the polyhydroxy polymers of butadiene have a cis-1,4 unsaturation content of about 10 to 30 percent. See Column 4, lines 37-57.

As discussed above the present invention is directed to rubbers comprising one or more hydroxyl-groups which are produced from diolefins, wherein said rubber(s) contain in the range 0.1 to 2 wt.% of bonded primary hydroxyl groups and have a glass transition temperature between -120 and -50°C, wherein said rubber(s) has cis-1,4 content, which is polymerized in solution, that is greater than 30%, and wherein said rubber(s) have an average molecular weight between 50,000 and 2,000,000.

Applicants submit that Thienot fails to teach or suggest each and every element of the claimed invention, specifically a rubber having a cis-1,4 content of greater than 30% or a rubber having an average molecular weight between 50,000 and 2,000,000. Therefore, Applicants submit that Thienot fails to anticipate or render the present invention obvious, and accordingly, Applicants request withdrawal of this ground of rejection.

Respectfully submitted,

By



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